

FIG. 1

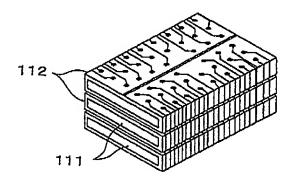


FIG. 2

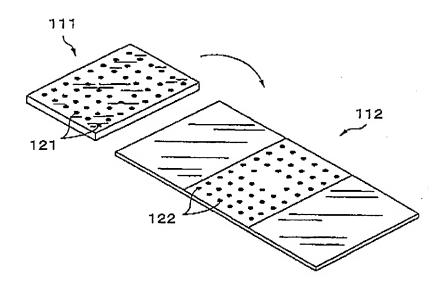


FIG. 3

Wataru KIKUCHI et al.

"Stacked Semiconductor Package"
Q80142---Filed February 27, 2004
Sheets_____ of 19

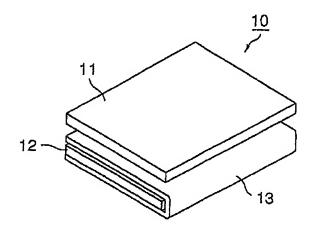


FIG. 4A



FIG. 4B

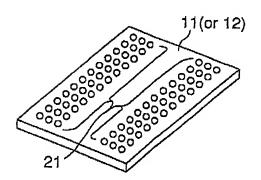


FIG. 8

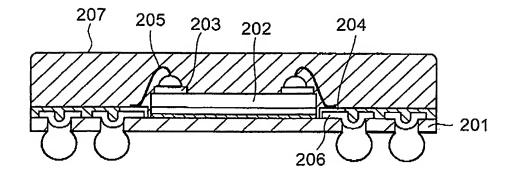


FIG. 5

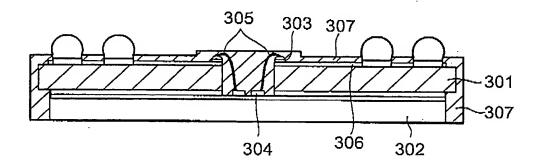


FIG. 6

Wataru KIKUCHI et al.

"Stacked Semiconductor Package"
Q80142---Filed February 27, 2004
Sheets_____ of 19

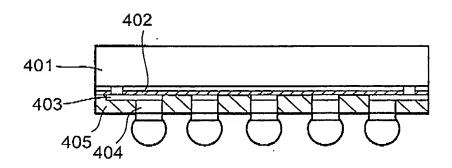


FIG. 7

1	2	3		7	8	9
DDV	NC	VSS	Α	VSSQ	DOS	VDDQ
NC	VSSQ	DM	В	DQS	VSSQ	NC
VDDQ	DQ1	VDDQ	С	VDDQ	DQ0	VDDQ
NC	VSSQ	DQ3	D	DQ2	VSSQ	NC
VDDL	VREF	VSS	E	VSSDL	CK	VDD
	CKE	WE	F	RAS	CK	OTD
BA2	BA0	BA1	G	CAS	CS	
	A10	A1	Н	A2	Α0	VDD
VSS	EA.	A5	J	A6	A4	
	A7	A9	κ	A11		VSS
VDD	A12	A14	L	A15	A13	

FIG. 9

Wataru KIKUCHI et al.
"Stacked Semiconductor Package"
Q80142---Filed February 27, 2004
Sheets____ of 19

1	2	3		7	8	9
VDD	NC	VSS	A	VSSQ	DOS	VDDQ
NC	VSSQ	DM	В	DQS	VSSQ	NC
VDDQ	DQ1	VDDQ	С	VDDQ	.DO0	VDDQ
NC	VSSQ	DQ3	ם	DQ2	VSSQ	NC
VDDL	VREF	VSS	Ε	VSSDL	СК	VDD
	CKE0	WE	F	RAS	CK	ОТОО
BA2	BA0	BA1	G	CAS	CS0	CS1
CKE1	A10	A1	Н	A2	A0 .	VDD
VSS	АЗ	A5	J	A6	A4	ODT1
	A7	A9	к	A11	A8	VSS
VDD	A12	A14	L	A15	A13	

FIG. 10

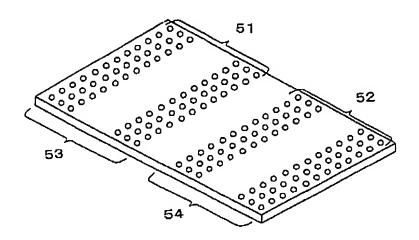


FIG. 11

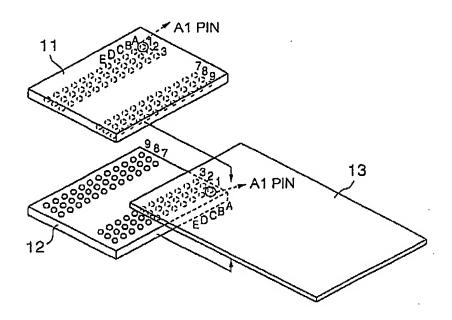


FIG. 12A

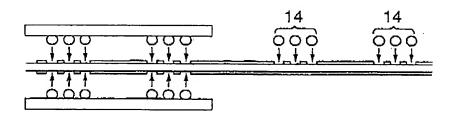
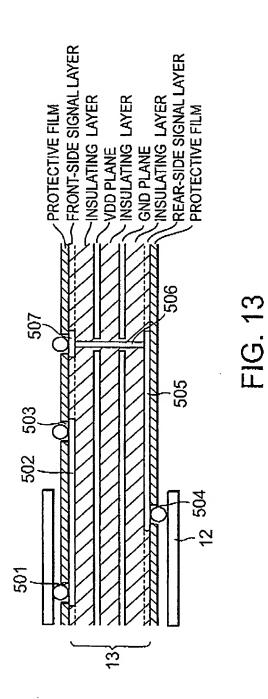
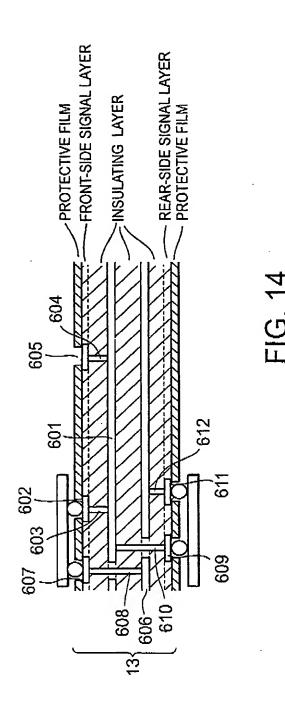


FIG. 12B





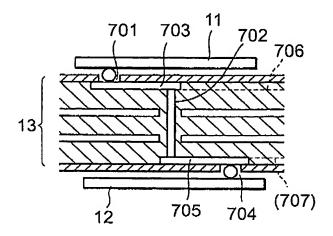


FIG. 15

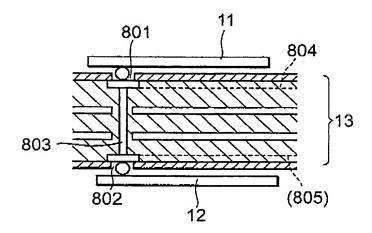
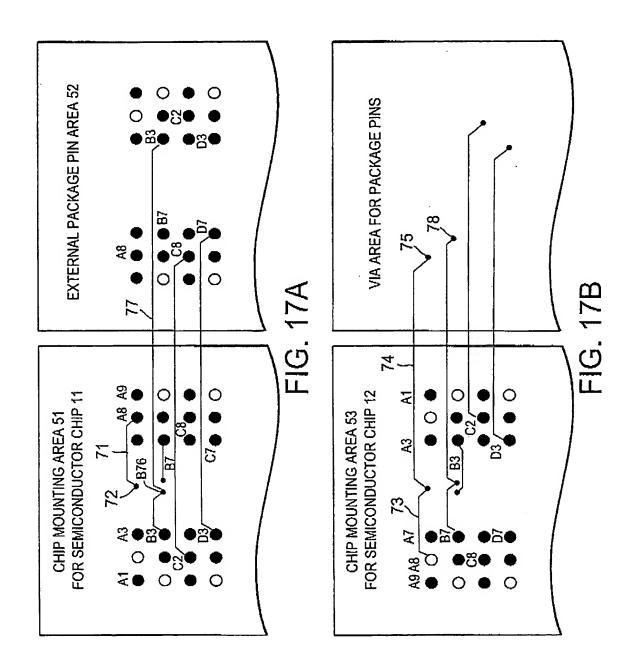


FIG. 16



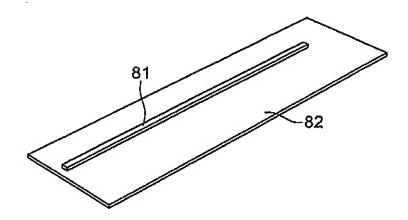


FIG. 18A

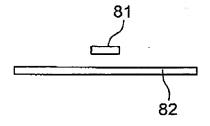


FIG. 18B

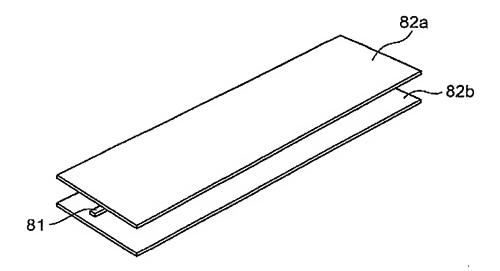


FIG. 19A

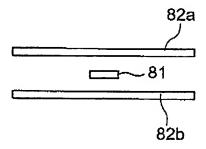


FIG. 19B

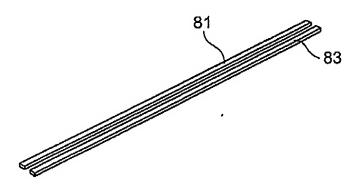


FIG. 20A

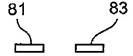


FIG. 20B

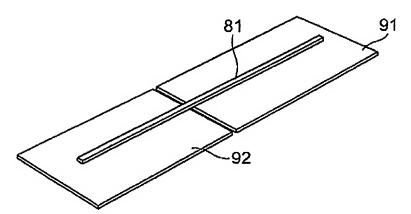


FIG. 21A

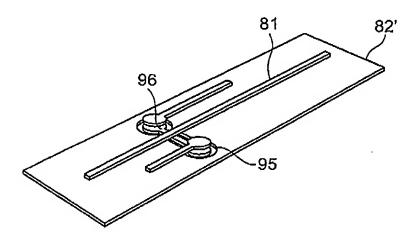


FIG. 21B

Wataru KIKUCHI et al.
"Stacked Semiconductor Package"
Q80142---Filed February 27, 2004
Sheets____ of 19

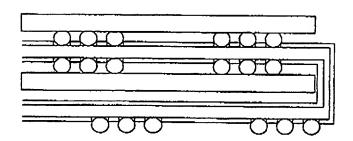


FIG. 22

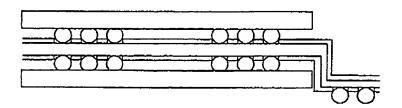


FIG. 23A

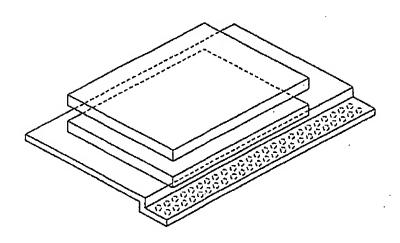


FIG. 23B